

PATENT  
10/042,107

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : Group Art Unit: 2171  
: Examiner C. L. Nguyen  
Margaret G. MacPhail : Intellectual Property  
Serial No: 10/042,107 : Law Department - 4054  
Filed: 01/08/2002 : International Business  
Title: A NETWORK DATABASE : Machines Corporation  
SYSTEM FOR PROVIDING DATABASE : 11400 Burnet Road  
OUTPUT IN A PLURALITY OF : Austin, Texas 78758  
STRINGS OF SEQUENTIAL DATA :  
SEGMENTS THROUGH A USER :  
INTERFACE WITH DIMENSIONS :  
LIMITING THE DATA CAPACITY OF :  
EACH SEGMENT  
Date: 05/13/08 :

CORRECTED BRIEF ON APPEAL

Commissioner for Patents  
P.O.Box 1450  
Alexandria, VA 22313-1450

Sir:

This is an Appeal from the Final Rejection of Claims 1-36 of this Application. VIII. Appendix containing a copy of each of the Claims is attached. [This Corrected Brief is responsive to the Notice of Non-Compliant Brief dated December 12, 2006]

I. Real Party in Interest

The real party in interest is International Business Machines Corporation, the assignee of the present Application.

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II. Related Appeals and Interferences

None

III. Status of Claims

**A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

There are 36 claims in this Application.

**B. STATUS OF ALL THE CLAIMS**

1. Claims cancelled: None.
2. Claims withdrawn from consideration but not cancelled: None.
3. Claims pending: 1-36.
4. Claims allowed: None.
5. Claims rejected: 1-36.

**C. CLAIMS ON APPEAL**

Claims on appeal: 1-36.

IV Status of Amendments

No amendments have been filed after Final Rejection.

V. Summary of Claimed Invention

The present invention addresses the problem of optimizing data stored in a database so that it may be easily and conveniently used for the limited size i.e. small display interfaces of PDAs, personal palm devices and cellular telephones. Simply stated, the present invention addresses this problem by providing a database wherein a plurality of different types of data are in turn further each represented by a plurality of strings of sequential segments. Each segment of each of said plurality of strings of each of said different types of data has a content which fits the device display size. When a particular data type is selected by a user at a display station, then in turn, the string stored in the database, the segments of which fit the dimensions of the limited display is provided from the database, and the segments in the string are sequentially displayed. The claims are annotated with respect to the Specification and Drawings as follows:

Independent claim 1 is annotated as follows with respect to the Specification and Drawings.

1. A computer controlled database system for providing a user with database output through a user interface having predefined dimensions limiting the capacity of each iterative segment of output comprising:

a database for storing a plurality of different types of output data (Fig. 1, data segment strings 60-62 originating from Web sites 47, 48, and 55; page 11, lines 2-16) including:

means for storing in said database data segments for each of the different types of stored data (Fig. 1, segments in strings 60-62; page 11, lines 2-5), each segment having a capacity limited by said predefined dimensions of said user interface (page 11, lines 13-17); and

means for storing in said database a plurality of strings of said segments, each string including a sequence of segments of one different type of stored data (Fig. 1, storage at Web sites 47, 48, and 55, page 11, 6-17, Fig. 7 step 83 and page 14, lines 15-23);

means enabling a user to select one of said strings of segments to be output (Fig 7, step 88, and page 15, lines 1-4); and

means for outputting said selected string of segments at said user interface (Fig 1, string 63 to cellular display 31).

Independent claim 13 is annotated as follows with respect to the Specification and Drawings.

13. In a computer controlled database system a method for providing a user with database output through a user interface having predefined dimensions limiting the capacity of each iterative segment of output comprising:

storing, in databases, a plurality of different types of output data in the form of strings of data segments;

providing said data segments for each of the different types of stored data (Fig. 1, segments in strings 60-62; page 11, lines 2-5), each segment having a capacity limited by said predefined dimensions of said user interface (page 11, lines 13-17);

providing a plurality of strings of said segments, each string including a sequence of segments of one different type of stored data (Fig. 1, storage at Web sites 47, 48, and 55, page 11, 6-17, Fig. 7 step 83 and page 14, lines 15-23);

enabling a user to select one of said strings of segments to be output (Fig 7, step 88, and page 15, lines 1-4); and

outputting said selected string of segments at said user interface (Fig 1, string 63 to cellular display 31).

Independent claim 25 is annotated as follows with respect to the Specification and Drawings.

25. A computer program having program code included on a computer readable medium for providing a user with a database system output through a user interface having predefined dimensions limiting the capacity of each iterative segment of output comprising:

database means for storing a plurality of different types of output data (Fig. 1, data segment strings 60-62 originating from Web sites 47, 48, and 55; page 11, lines 2-16) including:

means for storing in said database data segments for each of the different types of stored data (Fig. 1, segments in strings 60-62; page 11, lines 2-5), each segment having a capacity limited by said predefined dimensions of said user interface (page 11, lines 13-17); and

means for storing in said database a plurality of strings of said segments, each string including a sequence of segments of one different type of stored data (Fig. 1, storage at Web sites 47, 48, and 55, page 11, 6-17, Fig. 7 step 83 and page 14, lines 15-23);

means enabling a user to select one of said strings of segments to be output (Fig 7, step 88, and page 15, lines 1-4); and

means for outputting said selected string of segments at said user interface (Fig 1, string 63 to cellular display 31).

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**Dependent claim 4 (argued separately) is annotated as follows with respect to the Specification and Drawings.**

4. The database system of claim 3 wherein at least one of said strings includes a sequence of segments of image type of data (Fig. 1, strings 60 or 63, described on page 11, lines 2-6).

**Dependent claim 12 (argued separately) is annotated as follows with respect to the Specification and Drawings.**

12. The database system of claim 11 wherein said receiving display station further includes means for changing the order of segments to be displayed in a selected one of said plurality of strings of segments (Page 13, lines 20-24, with respect to Fig. 5 describes changing the order of segments 76 and 77).

VI. Grounds of Rejection

Claims 1-3, 8-11, 13-15, 20-23, 25-27, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. (US6,674,439).

Claims 4-7, 12, 16-19 24, 28-31, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. in view of Guck (US5,864,870).

Claims 12, 24, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. in view of Guck (US5,864,870), further in view of the Benschoter Publication (US2003/0101230).

VII. Applicant's Argument

Claims 1-3, 8-11, 13-15, 20-23, 25-27, and 32-35 are unobvious from the disclosure of Shin under 35 USC 103(a).

The present invention provides a database wherein a plurality of different types of data are in turn further each represented by a corresponding plurality of strings of sequential segments. Each segment of each of said plurality of strings of each of said different types of data has a content which fits the device display size. When a particular data type is selected by a user at a display station, then in turn, the string stored in the database, the segments of which fit the dimensions of the limited display is provided from the database, and the segments in the string are sequentially displayed.

Shin (US6,674,439) has goals similar to those of the present invention i.e. it does seek to reduce conventional image sizes so that these images may be presented on devices such as cellular telephones or palm held computers. However, the method and system of Shin for achieving this goal is quite different, and certainly does not teach the present invention. Shin does not suggest a database storing a plurality of strings of sequential data segments, each string having a plurality of segments. Each segment of each of said plurality of strings of each of said different types of data has a content which fits the device display size.

For the database in Shin, Examiner cites the system in Fig. 2 as well as the system in Fig. 4. It should be noted that at col 8, lines 10-11, the whole structure of Fig. 2 is described as the cellular telephone 10 of Fig. 1. Thus, the storage unit 30 is at best the storage unit in a cellular telephone. Likewise, the structure of Fig. 4 in Shin is that of a cellular telephone. It should be noted that at column 11, lines 45-50, of Shin, the structure of Fig. 4 is

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described as corresponding to the data structures of cellular telephones 10 and 11. In addition, at column 2, lines 1-7, Shin recognizes that the storage capacity of such cellular telephones is severely limited. Thus, the storage capacity of the cellular telephone structures shown in either Fig. 2 or Fig. 4 would be severely limited. The database required by the present invention which must store multiple strings of sequential data segments for each of a plurality of types of data, with each of the multiple string having a plurality of segments. Each segment of each of said plurality of strings of each of said different types of data has a content which fits the device display size. This is a great number of strings of data which must stored in the database. It is submitted that in view of the severely limited storage capacity of the cellular telephone apparatus shown in Fig. 4 of Shin, one skilled in the art would certainly be led away from the present invention which requires the storage of multiple strings, each for different sized user screen interfaces in turn for multiple different types of data.

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In view of the severely limited storage capacity of the cellular telephone apparatus of Fig. 4, Shin can not suggest the element found in all of the claims of the present Application:

"..means for storing in said database a plurality of strings of said segments, each string including a sequence of segments of one different type of stored data;..."

Such an extensive storage of data strings demanded by the present invention would obviously be well beyond the severely limited storage capacity of cellular telephone apparatus shown and described for Figs. 2 and 4 of Shin. This is clearly borne out the description of Fig. 4 in Shin at columns 11 and 12, cited by Examiner. For a suggestion of the above described storage means in Shin, Examiner cites "Means (Fig. 4, element 408) for providing a plurality of strings of said segments...."

It is noted that Examiner uses the term "providing" rather than "storing" because there is no storing of strings of segments in the severely limited storage capacity cellular telephone apparatus of Shin's Fig. 4. Element 408 which the Examiner cites for such "storing" is described in column 12 as an accumulative image storage unit in which images pulled off of the Web or Internet by image obtaining unit 407 are stored. There is no description setting forth that these accumulating images in the accumulative image storage unit 408 are in any way stored as a plurality of strings of segments.

The Internet or Web images in Shin in Accumulation Image Storage Unit 408 have to be dynamically processed before any images are output. There is not outputting of the claimed already stored string of image segments at the user interface. The Image Selecting Unit 409 first has to

select one of the images in Storage Unit 408. The Oversize Decision Unit 410 then has to compare the size of the selected image to an already stored size in Size Storage Unit 404 desired for the selected display unit. Finally, the image is resized if necessary to the desired limited screen size, e.g. one segment. This dynamic process in Shin of outputting of a sequence of dynamically produced segments on a one by one basis is not a direct teaching of outputting an already stored string of segments from a multitude of strings, each string including a sequence of segments of one different type of stored data already limited by the size of the computer display.

In view of the foregoing, Applicants submit that Shin does not suggest the present invention as defined in claims 1-3, 8-11, 13-15, 20-23, 25-27, and 32-35, and that these claims are unobvious, and thus patentable over Shin under 35 U.S.C. 103(a).

Claims 4-7, 12, 16-19 24, 28-31, and 36 are unobvious over Shin et al. in view of Guck (US5,864,870) under 35 U.S.C. 103(a) and thus are patentable.

These dependent claims are submitted to be patentable for all of the reasons set forth here herein above for the patentability of the basic claims. In addition, these claims all set forth a limitation: that the strings of stored data include a sequence of segments of the same type, e.g. image or text or video etc.

Attention is directed to representative claim 4.

4. The database system of claim 3 wherein at least one of said strings includes a sequence of segments of image type of data. (Fig. 1, strings 60 or 63).

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While Guck may disclose a database of files of the same type of data, this data is not stored in the form of strings of sequential segments which may then be output as a string of sequential segments of the same type of data. Guck's structure of related item items is in the form of a database hierarchy, and there is no teaching of any output of a string of sequential data segments of the same data type directly from storage. Even if the teaching of Shin and Guck could be combined, there would be no resulting suggestion of the storage in a database of a plurality of strings of segments of data of a selected same data type wherein each stored segment of the stored string has a capacity which is determined by the limited dimensions of the display screen on which the data is to be presented.

**Claims 12, 24, and 36 are unobvious under 35 U.S.C. 103(a) over Shin et al. in view of Guck (US5,864,870), further in view of the Benschoter Publication (US2003/0101230)**

These claims are submitted to be patentable for all of the reasons set forth here herein above for the patentability of the basic claims. In addition, these claims all set forth a limitation: that the strings of stored sequential data segments when output on the display are modifiable as to the sequence. (Fig 7, step 84, 85, or 86, page 14, lines 19-31).

**Attention is directed to representative claim 12.**  
**12. The database system of claim 11 wherein said receiving display station further includes means for changing the order of segments to be displayed in a selected one of said plurality of strings of segments.**

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Even if it is conceded that it is generally known to change output sequences of displayable segments, the Benschoter Publication does nothing to make up for the basic deficiencies of the of the primary and modifying references as set forth hereinabove.

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Conclusion

In view of the foregoing, it is submitted that:

Claims 1-3, 8-11, 13-15, 20-23, 25-27, and 32-35 are unobvious over Shin et al under 35 U.S.C. 103(a) and thus are patentable;

Claims 4-7, 12, 16-19 24, 28-31, and 36 are unobvious over Shin et al. in view of Guck (US5,864,870) under 35 U.S.C. 103(a) and thus are patentable; and

Claims 12, 24, and 36 are unobvious under 35 U.S.C. 103(a) over Shin et al. in view of Guck (US5,864,870), further in view of Benschoter Publication (20030101230).

Accordingly, it is respectfully requested that the Final Rejection of claims 1-36 be reversed, and that these claims be found to be in condition for allowance

Respectfully submitted,

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VIII. Claims Appendix

1    1. A computer controlled database system for providing a  
2    user with database output through a user interface having  
3    predefined dimensions limiting the capacity of each  
4    iterative segment of output comprising:

5                a database for storing a plurality of different types  
6    of output data including:

7                means for storing in said database data segments  
8    for each of the different types of stored data, each segment  
9    having a capacity limited by said predefined dimensions of  
10   said user interface; and

11                means for storing in said database a plurality of  
12   strings of said segments, each string including a sequence  
13   of segments of one different type of stored data;

14                means enabling a user to select one of said strings of  
15   segments to be output; and

16                means for outputting said selected string of segments  
17   at said user interface.

1    2. The computer controlled database system of claim 1  
2    wherein:

3                said user interface is a computer controlled display  
4    interface; and

5                said database for storing said output data is connected  
6    to said user interface through a network.

1    3. The database system of claim 2 wherein said network is  
2    the World Wide Web.

1   4. The database system of claim 3 wherein at least one of  
2   said strings includes a sequence of segments of image type  
3   of data.

1   5. The database system of claim 3 wherein at least one of  
2   said strings includes a sequence of segments of text type of  
3   data.

1   6. The database system of claim 3 wherein at least one of  
2   said strings includes a sequence of segments of video type  
3   of data.

1   7. The database system of claim 2 wherein at least one of  
2   said strings includes a sequence of segments of audio type  
3   of data.

1   8. The database system of claim 3 wherein said computer  
2   controlled display interface is on a receiving display  
3   station on said World Wide Web.

1   9. The database system of claim 8 wherein said means for  
2   providing said strings of data segments are associated with  
3   said database connected by the World Wide Web to said  
4   receiving display station.

1   10. The database system of claim 9 wherein:  
2         said World Wide Web further includes a service provider  
3   for organizing and providing data from database sources on  
4   said World Wide Web to said receiving display station; and  
5         said service provider includes said means for providing  
6   said plurality of strings of said segments to said receiving  
7   display station.

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1 11. The database system of claim 10 wherein said receiving  
2 display station further includes means for selecting and  
3 displaying one of said plurality of strings of said segments  
4 provided to said receiving display station.

1 12. The database system of claim 11 wherein said receiving  
2 display station further includes means for changing the  
3 order of segments to be displayed in a selected one of said  
4 plurality of strings of segments.

1    13. In a computer controlled database system a method for  
2    providing a user with database output through a user  
3    interface having predefined dimensions limiting the capacity  
4    of each iterative segment of output comprising:  
5         storing, in databases, a plurality of different types  
6    of output data in the form of strings of data segments;  
7         providing said data segments for each of the different  
8    types of stored data, each segment having a capacity limited  
9    by said predefined dimensions of said user interface;  
10        providing a plurality of strings of said segments, each  
11   string including a sequence of segments of one different  
12   type of stored data;  
13        enabling a user to select one of said strings of  
14   segments to be output; and  
15        outputting said selected string of segments at said  
16   user interface.

1    14. The method of claim 13 wherein:  
2         said user interface is a computer controlled display  
3    interface; and  
4         said database for storing said output data is connected  
5    to said user interface through a network.

1    15. The method of claim 14 wherein said network is the  
2    World Wide Web.

1    16. The method of claim 15 wherein at least one of said  
2    strings includes a sequence of segments of image type of  
3    data.

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1    17. The method of claim 15 wherein at least one of said  
2    strings includes a sequence of segments of text type of  
3    data.

1    18. The method of claim 15 wherein at least one of said  
2    strings includes a sequence of segments of video type of  
3    data.

1    19. The method of claim 14 wherein at least one of said  
2    strings includes a sequence of segments of audio type of  
3    data.

1    20. The method of claim 15 wherein said computer controlled  
2    display interface is on a receiving display station on said  
3    World Wide Web.

1    21. The method of claim 20 wherein steps of providing said  
2    strings of data segments is carried out at said databases of  
3    stored data connected by the World Wide Web to said  
4    receiving display station.

1    22. The method of claim 21 wherein:  
2         said World Wide Web further includes a service provider  
3         for carrying out steps of organizing and providing data from  
4         database sources on said World Wide Web to said receiving  
5         display station; and  
6         said service provider further provides said plurality  
7         of strings of said segments to said receiving display  
8         station.

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1    23. The method of claim 14 further including steps of  
2    selecting and displaying one of said plurality of strings of  
3    said segments provided to said receiving display station.

1    24. The method of claim 23 further including the step of  
2    changing the order of segments to be displayed in a selected  
3    one of said plurality of strings of segments at a receiving  
4    display station.

1    25. A computer program having program code included on a  
2    computer readable medium for providing a user with a  
3    database system output through a user interface having  
4    predefined dimensions limiting the capacity of each  
5    iterative segment of output comprising:

6                database means for storing a plurality of different  
7    types of output data including:

8                means for storing in said database data segments  
9    for each of the different types of stored data, each segment  
10   having a capacity limited by said predefined dimensions of  
11   said user interface; and

12               means for storing in said database a plurality of  
13   strings of said segments, each string including a sequence  
14   of segments of one different type of stored data;

15               means enabling a user to select one of said strings of  
16   segments to be output; and

17               means for outputting said selected string of segments  
18   at said user interface.

1    26. The computer program of claim 25 wherein:

2               said user interface is a computer controlled display  
3    interface; and

4               said database for storing said output data is connected  
5    to said user interface through a network.

1    27. The computer program of claim 26 wherein said network  
2    is the World Wide Web.

1    28. The computer program of claim 27 wherein at least one  
2    of said strings includes a sequence of segments of image  
3    type of data.

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- 1    29. The computer program of claim 27 wherein at least one  
2    of said strings includes a sequence of segments of text type  
3    of data.
  
- 1    30. The computer program of claim 27 wherein at least one  
2    of said strings includes a sequence of segments of video  
3    type of data.
  
- 1    31. The computer program of claim 26 wherein at least one  
2    of said strings includes a sequence of segments of audio  
3    type of data.
  
- 1    32. The computer program of claim 27 wherein said computer  
2    controlled display interface is on a receiving display  
3    station on said World Wide Web.
  
- 1    33. The computer program of claim 32 wherein said means for  
2    providing said strings of data segments are associated with  
3    said database connected by the World Wide Web to said  
4    receiving display station.
  
- 1    34. The computer program of claim 33 wherein:  
2         said World Wide Web further includes a service provider  
3         for organizing and providing data from database sources on  
4         said World Wide Web to said receiving display station; and  
5           said service provider includes said means for providing  
6         said plurality of strings of said segments to said receiving  
7         display station.

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1   35. The computer program of claim 34 wherein said receiving  
2   display station further includes means for selecting and  
3   displaying one of said plurality of strings of said segments  
4   provided to said receiving display station.

1   36. The computer program of claim 35 wherein said receiving  
2   display station further includes means for changing the  
3   order of segments to be displayed in a selected one of said  
4   plurality of strings of segments.

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IX. Evidence

There is no evidence presented.

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X. Related Proceedings

None